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Original Communication

Recognition of life extinct (ROLE) – multidiscipline role of healthcare professionals

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Abstract

Traditionally in England and Wales it has been in the domain of doctors to pronounce 'life extinct'. The recent implementation of recognition of life extinct (ROLE) procedure in England and Wales has permitted other health care workers undertake this role in selective cases. A momentous case that changed a medico-legal role is presented.

Keywords: Forensic medical examiner; General practitioner; Paramedic; Specialist nurse practitioner; Coroners officers; Life extinct; ROLE; Death certification

An elderly man collapsed in the street outside his home. He had complained of feeling unwell with sore throat, blurred vision and headache earlier in the day. The paramedics found the body cyanosed and cold with fixed dilated pupils and no visible signs of life or external injuries. A crew member suggested that the body should be removed from public view and taken indoors while they waited for the general practitioner (GP) to come and certify the fact of death. The widow of the deceased agreed and requested for him to be carried upstairs to avoid distressing other members of the bereaved family in the house. Unfortunately, the lifeless body slipped out of the ambulance carrying chair and fell down a few flights on the staircase.

The death was reported to the Coroner in the usual way as required in England and Wales.[1] An 'iatrogenic' injury sustained on the forehead during the removal of the body was notified by the paramedics. Thanatopsy under section 19 of the Coroners Act 1988 was prosected by a hospital histopathologist as specified in rule 6 of the Coroners Rules 1984. There were no postmortem photographs of the injuries because the matter was non-suspicious and regarded as a coroner's routine case.

The external injuries documented were non-lethal and relatively few on the head and the back. The internal injuries were transected ascending aortic arch with haemorrhage and left perinephric contusion. The upper respiratory tract was inflamed in keeping with the history of sore throat, but there was no significant natural disease. The cause of death was ascribed to multiple injuries.

The brief history recorded in the postmortem report suggested that the pathologist was not made aware of the full circumstances of the death including the body having been dropped on the staircase. The inference that the trauma was antemortem implied that the fatal injuries were caused by the ambulance crew when the victim was sentient during the removal of the body. The internal injuries could have been a result of a dead fall generating sufficient velocity to cause a decelerating injury to the aortic arch.

The author was instructed to review the medico-legal aspect of this case and prepare an expert report for the solicitors to assist the London Ambulance Service inquiry into the suspension of the ambulance crew who were involved.

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Fortuitously, the paramedics had recorded 3/15 Glasgow Coma Score (GCS) and the defibrillator machine provided ECG confirmation of asystole prior to the removal of the body at the scene. The objective evidence demonstrated that the trauma sustained in a fall on the staircase was postmortem on a balance of 51% probability acceptable to the Coroner, and therefore had not caused or contributed to the death. The new information was conveyed to the Coroner, and the pathologist rescinded the original cause of death. This was an example of a cause of death having been issued without the advantage of a complete background history and enhanced consideration of the pitfalls in forensic medicine.[2]

Forensic pathologists are aware that the chronological differential diagnosis of trauma inflicted in the perimortem period i.e. at or about the time of death, is notoriously difficult and may impede a reliable expert opinion on the timing of the injury. Contrary to the general perception, an injury can be produced in the early postmortem period as exemplified by bruises caused by undertakers, usually small in size and overlying a bony anatomy. This after-life phenomenon must be differentiated from antemortem bruises which evolve late and become visible in the postmortem period. Similarly, bloodshed from abrasions and cuts after death can be misinterpreted as a vital reaction of an antemortem injury. In homicide cases where dating injuries with a degree of certainty is required, a microscopic study employing histochemical technique such as staining for haemosiderin pigment or enzyme methods to detect early reparative changes may assist in the differentiation of the injuries inflicted in the perimortem period. Unfortunately, in the earliest phase of an antemortem injury the histological features observed can be inconclusive and offer scant assistance in differentiating a recent postmortem injury.

A misdiagnosis of postmortem bruising or haemorrhage e.g. in the neck that is attributed to throttling, may become highly significant when criminal proceedings are consequently instigated with possibilities of miscarriages of justice. There are similar pitfalls in the recognition of postmortem artefact which mimic vital injuries and anecdotal examples show that even forensic pathologists, coroner's pathologists and forensic physicians alike are not infallible.[3–6] It should be of considerable interest to know whether postmortem artefacts are more common than actually realised and what effect if any this may have on the reliability of the pathological evidence.

Traditionally, a person was dead only when pronounced by a doctor. It is not a legal obligation and in English law there is no specific test laid down by statute to determine that death has occurred.[7] The issue of a medical certificate of the cause of death (MCCD) on the other hand is the lawful prerogative of a registered medical practitioner, and no other.

Following the defining event described, the paramedics or operational ambulance personnel are now permitted to institute the recognition of life extinct (ROLE) procedure when the fact of death is unequivocal e.g. when the body is cold and rigid, decapitated or shows advanced postmortem decomposition, in accordance with the National Clinical Guidelines proposed by the Joint Royal Colleges Ambulance Liaison Committee.[8] It allows the paramedics to make a judgement whether to discontinue resuscitation of a patient who demonstrates pulseless electrical activity despite advanced life support. A proposal in the Shipman enquiry, if implemented, is that a properly trained paramedic should be authorised to certify the fact of death in public places and arrange the removal to a hospital mortuary with agreement of the police officer at the scene after notifying the coroner's office and submitting a completed form to a coroner's investigator in the new system.[9]

The death must be conditionally reported to the Coroner and the body is not to be moved from the scene until authorised by the Police in liaison with the Coroner's Office. The paramedics may cover the body to retain some dignity of the patient in a public place. A Health and Safety extrication of the corpse from hazardous locations, such as railway tracks, road carriage way, water way, construction site and industrial work place, can go ahead without delay when a forensic physician or forensic medical examiner (FME) or the GP is unable to attend the scene at short notice. It would allow the scenes-of-crime officer (SOCO) to proceed unhindered with the forensic investigations in suspicious deaths showing signs that are incompatible with life.

A spin-off has been a local ad hoc arrangement in some coroner's jurisdictions which would allow approved nurse practitioners and coroner's officers with a nursing background to recognise life extinct and verify the death in selected cases where it is obvious that the person must be dead.

Any unease about the change in the medico-legal role which now authorises an individual without clinical training to recognise life extinct is probably unfounded and to date there has been no reported adverse outcome when ROLE procedure has been instituted and correctly implemented. The mandatory completion of the confidential verification of fact of death form LA3 (Fig. 1) by the ambulance personnel serves as a safeguard and prevent in a case of suspended animation the Lazarous syndrome (a biblical rising from the dead). It requires that the condition of the patient must be incompatible with life and in the collapsed state there must be no sign of life or suspended animation due to drowning, hypothermia, poisoning or overdose and pregnancy, and no evidence of cardio-pulmonary resuscitation (CPR) in the preceding 15 minutes. A knowledge of the clinical signs of death and estimation of the postmortem interval is not essential. If there should be any doubts in the criteria for instituting ROLE procedures then a medical practitioner would be summoned to attend as soon as practical to confirm the fact of death and issue appropriate advice to the police officer at the scene of death.

Form LA3

CONFIDENTIAL

PRF No. ..... CAD .....

Verification of Fact of Death

Date:		**Time:**	
Patient's Name:			
Patient's Address:			
Age or Date of Birth:			
GP Name:			
GP Address:			

1. Condition incompatible with life ***State Condition***
2. Patient in collapsed state with no signs of life **AND**
   - DNAR or Validated Advanced Directive (Living Will) ☐
   - No evidence of CPR in past 15 mins **AND** no signs of
     - a) DROWNING ☐
     - b) HYPOTHERMIA ☐
     - c) POISONING OR OVERDOSE ☐
     - d) PREGNANCY ☐
3. Terminal phase of illness ☐
4. Palliative care during transport ☐

AND

Asystole ECG trace for 30 seconds ☐

Please Circle

Control Notified	Yes / No	Time		
Police Contact	Yes / No	Time	Police on scene	Time
GP Contact	Yes / No	Time	GP on scene	Time
Relative/Neighbour contacted		Yes / No		
Minister of religion contacted		Yes / No	Time	

Verified By Personnel No. .....

Witnessed By Personnel No. .....

Call Sign .....

Fig. 1. Form LA3 verification of fact of death.

Acknowledgement

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